

CLAIMS

1. Pyrolysis oil containing fuel consisting of an emulsions of pyrolysis liquids and natural and/or mineral oils with emulsifiers and possibly co-emulsifiers capable of forming oil-in-water, bicontinuous or water-in-oil emulsions.

2. Pyrolysis oil containing fuels according to Claim 1 wherein the emulsifiers are chosen in the group consisting of:

- non-ionic block-copolymers (or homopolymers) surfactants having HLB from 4 to 18 possibly in combination with non ionic surfactants with HLB from 4 to 18

and

- anionic block-copolymers (or homopolymers) surfactants having HLB 4 to 18.

3. Pyrolysis oil containing fuel according to Claim 2 wherein the content in surfactant is up to 3% by weight calculated on the total of the emulsion.

4. Pyrolysis oil containing fuels according to Claim 2 wherein the fuels is represented by a water-in-oil emulsion presenting a biooil/mineral or natural oil ratio of 1 - 45% (w/w).

5. Process for preparing a fuel according to claim 4 wherein a surfactant of the first group indicated in Claim 2 is added to mineral or natural oil and thereafter the biooil is added to the resulting mixture using a homogeniser.

6. Pyrolysis oil containing fuel according to Claim 2 wherein the fuel is represented by a bicontinuous emulsion presenting a biooil/mineral or natural oil ratio of 45 - 55% (w/w).

7. Process for preparing a fuel according to claim 6 wherein a surfactant of the first group indicated in Claim 2 is added to mineral or natural oil and to the biooil and then mixing the resulting mixtures together using an homogeniser.

8. Pyrolysis oil containing fuel according to Claim 2 wherein the fuel is represented by an oil-in-water emulsion presenting a biooil/mineral or natural oil ratio of 55 - 99% w/w.

9. Process for preparing fuel according to claim 8 wherein an emulsifier (which can be chosen both in the first or the second of the above-described groups) is added to the biooil and thereafter the natural or mineral oil is added to the resulting mixture during emulsification.

1 10. Pyrolysis oil containing fuel according to claim 1 containing also a co-emulsifier
2 chosen between non ionic surfactants having HLB from 4 to 18.

1 11. Pyrolysis oil containing fuel according to claim 10 wherein the co-emulsifier is
2 contained in quantity comprised between 0,05 and 0,5% w/w.

1 12. Pyrolysis oil containing fuel according to Claim 1 wherein the pyrolysis oil
2 content is comprised between 55 and 99% (by weight).

1 13. Use of a fuel according to Claim 2 in internal combustion engines.